

In the Claims

Please amend the claims as follows:

WE CLAIM:

1 1. (currently amended) A network switch for resolving requests from a plurality of host
2 initiators by scheduling access to a plurality of disk storage devices, the network switch
3 comprising:
4 (a) a switched fabric comprising a plurality of switching elements, each switching
5 element comprising:
6 a plurality of bi-directional switched fabric ports; and
7 a control input connected to receive switch control data for selectively
8 configuring the switching element in order to interconnect the bi-directional
9 switched fabric ports;
10 (b) a memory for storing a routing and scheduling program; and
11 (c) a microprocessor, responsive to the requests, for executing the steps of the routing
12 and scheduling program to generate the switch control data to transmit scheduled
13 requests through the bi-directional switched fabric ports,
14 wherein:
15 at least one of the plurality of switching elements comprises a disk storage interface
16 for connecting to a selected one of the disk storage devices;
17 the microprocessor for scheduling access to the plurality of disk storage devices
18 through the disk storage interface;
19 the disk storage interface for receiving scheduling data from the selected one of the
20 disk storage devices;
21 the memory for receiving the scheduling data via the bi-directional switched fabric
22 ports of a selected number of the switching elements; and

23 the scheduling data is processed according to a priority such that the selected
24 switching elements transfer the scheduling data through the bi-directional
25 switched fabric ports before transferring data associated with the scheduled
26 requests.

1 2. (previously presented) The network switch as recited in claim 1, wherein the at least one
2 switching element further comprises a disk storage device connected to the disk storage
3 interface.

1 3. (previously presented) The network switch as recited in claim 1, wherein:
2 (a) each disk storage device comprises a disk and a head; and
3 (b) the scheduling data comprises a radial location of the head relative to the disk within
4 each disk storage device.

1 4. (previously presented) The network switch as recited in claim 3, wherein the scheduling
2 data further comprises a circumferential location of the head relative to the disk within
3 each disk drive.

1 5. (previously presented) The network switch as recited in claim 1, wherein the switching
2 elements further comprise a plurality of virtual lanes, wherein:
3 (a) at least one of the virtual lanes is reserved for transferring data associated with the
4 scheduled requests;
5 (b) at least one of the virtual lanes is reserved for transferring the scheduling data; and
6 (c) the virtual lane for transferring the scheduling data comprises a higher priority than
7 the virtual lane for transferring the data associated with the scheduled requests.

1 6. (previously presented) The network switch as recited in claim 1, wherein the scheduling
2 data is communicated to the memory through the bi-directional switched fabric ports
3 according to an isochronous protocol.

1 7. (previously presented) A method of resolving requests from a plurality of host initiators
2 by scheduling access to a plurality of disk storage devices connected to a network switch,
3 the network switch comprising a switched fabric comprising a plurality of switching
4 elements, the method comprising the steps of:

5 (a) transmitting through the switching elements scheduling data from the plurality of disk
6 storage devices to a memory;

7 (b) evaluating the scheduling data in order to schedule the requests from the host
8 initiators; and

9 (c) transmitting data associated with the scheduled requests through the switching
10 elements to the plurality of disk storage devices,

11 wherein the scheduling data is processed according to a priority such that the
12 switching elements transfer the scheduling data before transferring data associated
13 with the scheduled requests.

1 8. (previously presented) The method as recited in claim 7, wherein:

2 (a) each disk storage device comprises a disk and a head; and

3 (b) the scheduling data comprises a radial location of the head relative to the disk within
4 each disk storage device.

1 9. (previously presented) The method as recited in claim 8, wherein the scheduling data
2 further comprises a circumferential location of the head relative to the disk within each
3 disk drive.

1 10. (previously presented) The method as recited in claim 7, wherein the switching elements
2 further comprise a plurality of virtual lanes, wherein:
3 (a) at least one of the virtual lanes is reserved for transferring data associated with the
4 scheduled requests;
5 (b) at least one of the virtual lanes is reserved for transferring the scheduling data; and
6 (c) the virtual lane for transferring the scheduling data comprises a higher priority than
7 the virtual lane for transferring the data associated with the scheduled requests.

1 11. (previously presented) The method as recited in claim 7, wherein the scheduling data is
2 communicated to the memory through the switching elements according to an
3 isochronous protocol.